

Self-medication prevalence and related factors among medical university students, 2015

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ABSTRACT

Background: Self-medication is one of the main health problems. Given the high prevalence of self-medication in society and between students, the aim of this study was to assess the rate of self-medication among Ardabil medical students.

Methods: This cross-sectional study has been done on 150 students which selected randomly from Ardabil Medical University Science students. Data collected by a questionnaire and then analyzed by statistical method in SPSS.19.

Results: The rate of self-medication among students was 65%. Most of usage drug was sedatives with 77.1%. 7.2% of students were prepared drugs from places other than pharmacies and most of self-medication was the existence of drug free market with 71%.

Conclusions: Given the high prevalence of self-medication among students it is necessary to promote a culture of drug use among students, education in the field of self-medication and its side effects are given to students.

Keywords: Ardabil, Prevalence, Self-medication, Students

INTRODUCTION

Medicine as a strategic commodity and basic needs of the people has always been of great importance. Self-medication is the most common cause of poisoning in the world. Adventitious and irrational use of medicines not only does not help the patient's health, but also because of side effects and complications can cause serious problems.¹⁻³

Today, the indiscriminate use of drugs and generally self-medication known as the health and socio-economic problems in various countries such as Iran. Unfortunately, in developing countries, the use of drugs has long roots. According WHO estimation 40% of therapeutic costs spent in drugs and drug abuse is a world issue. In a study in Spain, the rate of self-medication with antibiotic was reported about 9.2%.^{4,5}

Today, with progress in various fields of science, we are seeing more people access to various drugs and this easily accessible which have become to a harmful social phenomenon due to excessive use of drugs in society.⁶

In Iran, 30.3% of all patients have self-medication in skin diseases and it was estimated that 83.3% of Iranian peoples have self-medication.⁷

Self-medication is causing to increasing agents such as bacterial resistance, optimal treatment failure, Intentional and unintentional poisoning and unwanted side effects. Due to the increasingly widespread of self-treatment phenomenon in societies and direct role of person in the selection and use of drugs, because of people to have a long life and a relatively healthy and active, it is necessary; the factors affecting the behaviour of individuals to achieve optimal health behaviour must be identified.

The rate of self-medication between students in fields medicine, dentistry, pharmacology, health education, health, nursing, midwifery and health economy and management were 40.5%, 20.3%, 31.1%, 25%, 42.1%, 32.1%, 29.4% and 50%; respectively.⁴

Self-medication is prevalent in many of societies and its rate reported in European, America, Kuwait, India and Nepal 68%, 77%, 92%, 31% and 59% respectively.^{8,9}

According to studies, students in universities Iran, Turkey, Slam Abad and Karachi have self-medication with 83%, 45%, 42% and 76% respectively.¹

According to studies, Iranians yearly use 339 drugs which were more than world standard. Self-medication by society peoples specially in students for cultural and economic reasons change to main problem. This phenomenon is a risk for society health and solving this problem requires education and information for the public community.¹¹⁻¹²

In Kerman study, factors such as previous use and recovery, lack of funds to pay a visit to the doctor, free pharmaceutical market, dictated by the doctor, illness and lack of medical care and ease of purchase drugs without prescription were reported as causes for self-medication.¹³

Self-medication is one of the health problems which cause to increasing the drug use capitulation, drug resistance, unwanted side-effects and others.¹⁴⁻¹⁷

Studies showed that about 65% of diseases in country due to non-having correct pattern of drug prescriptions by physicians and irrational use of medicines by people. According to WHO reports, the country Iran is one of the 20 top countries with higher drug use and in Asia after China has the second rank.¹⁶

The aim of this study was to assessment the rate of self-medication and effective factors between medical university students in Ardabil.

METHODS

This was a cross-sectional study that has been done on Ardabil medical students in 2014. Samples selected by random sampling method and the sample size estimated 150 which from them we have 12 case non-response and the final sample size was 138 students. Data collected by a questionnaire in two section, first demographic data and second specialty questions about drug use. We confirmed the validity and reliability of questionnaire by scientific methods and collected data analysed by descriptive and analytical statistical methods in SPSS.19. The $p < 0.05$ considered as significant.

RESULTS

39.9% of students were boy and rest of them was girl. 65% of students have self-medication which this rate in female was more than male. Self-medication in people with history of certain diseases was more. The mean age of students was 19.5 ± 1.7 years. There weren't any significant relation between sexes, age and residence place, indigenous or not with self-medication.

50.7% of students were residential, 15.2 live in out of dorm and 34.1% live in home. Most of students families have moderate economy level (71%). 94.9% of students have insurance and 93.5% were single (Table 1).

Table 1: The demographic of people.

Variables	n	%
Sex		
Male	55	39.9
Female	83	60.1
Marriage		
Single	129	93.5
Married	9	6.5
Insurance		
Yes	131	94.9
No	7	5.1
Dorm		
Dorm	76	50.7
Home	51	34.1
Rent home	23	15.2
Economy		
Low	17	10.9
Moderate	107	71
High	26	18.1

The usage of Analgesics, antibiotics, vitamins and other supplemental between students were 77.1%, 34.6% and 16.7% respectively. 85.5% of students used self-medication only for cold and headache. 7.2% of students providing drugs from places other than drugstore and

88.4% of students have drugs such as acetaminophen, ibuprofen, adult-cold and antibiotics in home.

The most of self-medication causes were drugs free market (71%), time for referral physician and other recommendation for self-medication (Table 2).

Table 2: The causes of self-medication by students.

Causes	n	%
Easily obtain drugs	54	39.1
History of certain disease	11	8
Lack of awareness of the effects of used drugs	68	49.3
Non having time to see a doctor	91	69.6
Drug use because of non-importance of disease	79	57.2
Diagnosis diseases symptoms by own	72	52.2
No need to call a doctor	33	23.9
Previous experience of taking the medication without a prescription, recovery and similar illness symptom	81	58.7
Addiction to certain drug	8	5.8
Advise others on drug use	96	65.9
Free drug marketing	98	71
Comfortable providing free medicines from pharmacies	47	34.1
Economic problems	16	11.6

DISCUSSION

There weren't any significant relation between sex, age, residence place with self-medication and this result was similar with Baghiyani and Pourreza.^{4,14}

65% of students have self-medication which was a significant percent. Self-medication in students live in dorm was more than other students live in home or house rental.

The most common causes of self-medication between students were free drug market, not having enough time to see a doctor and advise others to be self-medication with 71%, 69.6% and 65.9%; respectively. In study done in Karachi students in 2007, most cause of self-medication was previous experience of illness with 51.1%.¹⁷

Another study in Yazd showed that non time for see a doctor, belief in the absence of complications and non-prescription drug sales by pharmacies were the some of the factors affecting student's self-treatment and self-medication.¹⁴

Also, some of causes such as drug side-effects, diagnosis diseases by own and easy drug providing with 49.3%, 52.2% and 39.1% are important in self-medication of students. Higher self-treatment and self-medication in students can increase the effects, risks and drug

interactions and resulting in a negative view of the logical treatment of diseases in the community.^{18,19}

In this study the relation between age and self-medication wasn't assessed but in other studies this relation reported as positive or negative relation that can be due to differences in culture, life pattern and economical and social causes.^{17,20,21}

66.6% of students have insurance and rate of self-medication between students with insurance was about 96% compare to other students. In Ghazvin study, the rate of self-medication in students with insurance was 85.7% which its causes can be due to rate of services and Liability insurance.¹⁰

It seems cheap fee of drugs and lack of insurance coverage can be effective in self-medication and illegible use of drugs. Because people without insurance for reason lack of easy access to physician more proceed to self-treatment or self-medication.²² The most form of used drug was tablet which was similar to Birjand study.¹⁰

In many homes, existence of excessive drugs such as Adult-cold, antibiotics and analgesia which prescribed without doctor and used arbitrary. The rate of analgesias between students was 77.1% which was similar to other study results.²²⁻²⁵

The study done in Arak in 2009, most of arbitrary used drugs were antibiotics, adult-colds, Iron and analgesia with 68%, 64%, 57% and 54%; respectively.²⁶

One of the major factors influencing the self-medication in most studies and our study was selling drugs without a prescription with 34%.

CONCLUSION

Results of this study and other research showed that the prevalence of self-medication in Ardabil medical students was high and more focus on continuing education and the promotion of a culture of drug use, increasing access to medical services and tracking medical advice centers at universities for the correct the behaviour of people, especially the young and vulnerable (students) and increase their motivation to the rational treatment of diseases is essential.

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